

## REMARKS/ARGUMENTS

### 1.) Claim Rejections – 35 U.S.C. § 101

The Examiner rejected claims 10-11 under 35 U.S.C. §101. According to the Examiner on Page 2 of the Office Action:

Applicant's arguments filed June 5, 2007 have been fully considered, at least under 35 U.S.C. 101, but they are not persuasive. ***Although the claims 10 and 11 are now statutory, the specification is still not met the 35 U.S.C. 101 condition.*** The specification recites "The instructions may be program code means loaded in a memory, such as a RAM, from a storage medium OR from another computer via a computer network, which clearly including intangible media such as signals, carrier waves, transmissions, optical waves, transmission media or other media incapable of being touched or perceived absent the tangible medium through which they are conveyed. ***Therefore, claims 10 and 11 recite a non-statutory subject matter.*** (emphasis added)

Applicant respectfully traverses the rejection. Applicant is perplexed by the Examiner's logical argument:

1. Claims 10 and 11 are statutory;
2. The Specification is not statutory;
3. Therefore, claims 10 and 11 are non-statutory.

Examiner presents an argument composed of a set of statements, one of which is the conclusion (3), the others (1,2) are the premises. However, the premises do not support the conclusion.

The Examiner first states that amended claims 10 and 11 are statutory. The Examiner then states the premise that ***the Specification*** does not meet the 35 U.S.C. §101 condition. From that premise, the Examiner concludes that claims 10 and 11 are non-statutory. However, it is well known that ***the claims*** define the scope of the claimed invention. Paragraph 7.05.01 of the MPEP provides guidance for rejecting claims based on 35 U.S.C. §101 (emphasis added):

...the **claimed invention** is directed to non-statutory subject matter because [1]

Examiner Note

In bracket 1, explain why the **claimed invention** is not patent eligible subject matter, e.g.,

(a) why the **claimed invention** does not fall within at least one of the four categories of patent eligible subject matter recited in 35 U.S.C. 101 (process, machine, manufacture, or composition of matter); or

(b) why the **claimed invention** is directed to a judicial exception to 35 U.S.C. 101 (i.e., an abstract idea, natural phenomenon, or law of nature) and is not directed to a practical application of such judicial exception (e.g., because the **claim** does not require any physical transformation and the invention as claimed does not produce a useful, concrete, and tangible result); or

(c) why the **claimed invention** would impermissibly cover every substantial practical application of, and thereby preempt all use of, an abstract idea, natural phenomenon, or law of nature.

Nowhere in claims 10 or 11 does the Applicant claim as part of his invention the elements ascribed thereto by the Examiner (signals, carrier waves, transmissions, optical waves, transmission media or other media incapable of being touched or perceived):

10. A computer program product embodied on a computer readable medium adapted to configure a processor to process a message to determine a tag value from the message and from a key according to a message authentication code, the computer program product comprising:

a computer readable storage medium having computer readable program code embodied therein, the computer readable program code further comprising:

computer readable program code adapted to configure the processor to select one of a plurality of symbols, the plurality of symbols forming a codeword encoding a data item derived from the message, the codeword encoding the data item according to an error correcting code, wherein said key determines which one of said plurality of symbols is selected; and

computer readable program code adapted to configure the processor to determine the tag value to be the selected symbol.

11. A computer program product embodied on a computer readable medium adapted to configure a processor to communicate data messages, the computer program product comprising:

a computer readable storage medium having computer readable program code embodied therein, the computer readable program code further comprising:

computer readable program code adapted to configure the processor to determine a tag value from a message and from a key according to a message authentication code;

computer readable program code adapted to configure the processor to select one of a plurality of symbols, the plurality of symbols forming a codeword encoding a data item derived from the message, the codeword encoding the data item according to an error correcting code, wherein said key determines which one of said plurality of symbols is selected; and

computer readable program code adapted to configure the processor to determine the tag value to be the selected symbol.

The Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility ("Guidelines"), Section 2106 of the MPEP provides, in pertinent part, as follows (emphasis added):

## II. DETERMINE WHAT APPLICANT HAS INVENTED AND IS SEEKING TO PATENT

It is essential that patent applicants obtain a prompt yet complete examination of their applications. Under the principles of compact prosecution, ***each claim should be reviewed for compliance with every statutory requirement for patentability*** in the initial review of the application, even if one or more claims are found to be deficient with respect to some statutory requirement. Thus, USPTO personnel should state all reasons and bases for rejecting claims in the first Office action. Deficiencies should be explained clearly, particularly when they serve as a basis for a rejection. Whenever practicable, USPTO personnel should indicate how rejections may be overcome and how problems may be resolved. A failure to follow this approach can lead to unnecessary delays in the prosecution of the application.

### C. Review the Claims

***The claims define the property rights provided by a patent***, and thus require careful scrutiny. ***The goal of claim analysis is to identify the boundaries of the protection*** sought by the applicant and to understand how the claims relate to and define what the applicant has indicated is the invention. USPTO personnel must first determine the scope of a claim by thoroughly analyzing the language of the claim before determining if the claim complies with each statutory requirement for

patentability. See *In re Hiniker Co.*, 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998) ("[T]he name of the game is the claim.").

USPTO personnel should begin claim analysis by identifying and evaluating each claim limitation. For processes, the claim limitations will define steps or acts to be performed. For products, the claim limitations will define discrete physical structures or materials. Product claims are claims that are directed to either machines, manufactures or compositions of matter.

USPTO personnel are to correlate each claim limitation to all portions of the disclosure that describe the claim limitation. This is to be done in all cases, regardless of whether the claimed invention is defined using means or step plus function language. The correlation step will ensure that USPTO personnel correctly interpret each claim limitation.

As noted, the Examiner states that *the Specification* does not meet the 35 U.S.C. §101 condition. Notably, the Applicant does not even refer to these supposedly claimed non-statutory claim elements. Rather, the Examiner first *implies* non-statutory claim elements into the Specification, and then reads these claim elements into claims 10 and 11, so as to reject the present application.

Applicant is unaware of a requirement that a Specification be silent as material that is non-statutory subject matter, lest it be incorporated into the claims. In fact, many issued patents *expressly* describe within the Specification, *but do not claim*, signals, mathematical algorithms, laws of nature, etc., in order to provide the public with a fuller understanding of the claimed invention. Applicant does not believe that a patent whose Specification refers to, or can be implied to refer to, e.g., how an apparatus processes a signal, is subject to invalidation because the claims thereof must be interpreted as incorporating the non-statutory claim element of the signal itself (as part of the apparatus). If such were the case, any patent on a wireless or computer related apparatus, all of which process signals, would be invalid, even though the signal itself is not expressly claimed.

Applicant respectfully submits that the Examiner has incorrectly asserted that a Specification (as opposed to the claims) must meet the requirements of 35 U.S.C. §101, and further, has impermissibly fashioned additional material as being implied in the Specification, and then has impermissibly deemed such fashioned material as being

incorporated from the Specification as claim elements of claims 10 and 11. Hence, favorable reconsideration of claims 10 and 11 is respectfully requested in view of the foregoing remarks.

## 2.) Claim Rejections – 35 U.S.C. § 103(a)

The Examiner rejected claims 1-5, 7-12 under 35 U.S.C. § 103(a) as being unpatentable over Graveman (US 6,851,052) and further in view of Carman *et al* (US 6,845,449 81). The Applicant respectfully traverse the rejection as it is technically impossible to combine these two references to obtain the present invention. Because of this technical inability (as described below) to combine the two, it would not have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Graveman with the teaching of Carman to authenticate the source and integrity of transmitted or stored information. Further, the ordinary skilled person would not have been motivated to modify Graveman with the teaching of Carman to provide absolute authentication of the source or origin of a received message so as to permit verifying approximate integrity between the original message and the received message.

Graveman discloses a construction of a probabilistic authentication code. This, in itself, differs the construction of the present invention as Graveman lacks the constructive part of using an error-correcting code. Carman, on the other hand, discloses a construction of an authentication code that has some capability of providing error correction, at the expense of sending an encrypted "inner result" string. Notably, the inner function 1502 is reversible, otherwise the error-correction capability is lost. However, Graveman is not reversible, and hence it is technically impossible to combine these two references. At most, the combination of Graveman and Carman might result in an authentication code that has some error-correction capabilities. But even so, such a combination would not motivate one skilled in the art (much less disclose or suggest to one skilled in the art) as to how the error-correction code can be utilized to construct an authentication code.

The Examiner further rejected claims 5-6 under 35 U.S.C. § 103(a) as being unpatentable over Graveman and further in view of Carman *et al* and Shokrollahi (US 6,631,172). The Applicant respectfully traverse the rejection because, as noted above,

it is technically impossible to combine Graveman and Carman to obtain the present invention. Because of this technical inability to combine the two, it would not have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Graveman with the teaching of Carman and Shokrollahi to authenticate the source and integrity of transmitted or stored information using a Reed-Solomon error correcting code wherein the tag value is determined by evaluating a Reed-Solomon encoding polynomial at a point determined by the key and the tag value is an element in a finite field.

### **3.) Prior Art Not Relied Upon**

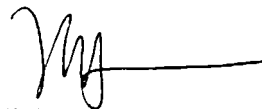
In paragraph 8 of the Office Action, the Examiner stated that the prior art made of record and not relied upon is considered pertinent to the Applicant's disclosure. None of the cited art alone disclose, or together, teach or suggest the present invention as claimed in claims 1-12.

**CONCLUSION**

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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